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ABSTRACT

A study was conducted at Foothill College (California) during Fall 1978 and Spring 1979 to determine the effect of different approaches to pre-registration counseling on students' academic success and degree of satisfaction with their college experience. Four groups of 50 randomly selected, first-time, full-time students were involved in the study. One group received group counseling in an "Introduction to College" course; another underwent individual, pre-registration counseling interviews; the third saw counselors only to obtain approval of courses; and the fourth group chose to receive no academic counseling at all. Program changes, grade point average, and rate of retention were noted for each group at the end of the Fall and Spring terms, and a questionnaire was administered at the beginning of the Spring semester to determine students' satisfaction with the counseling they had received. Major findings indicate that students receiving pre-registration counseling had more satisfaction with their initial program of study and withdrew at a lower rate than the non-counseled group. In addition, students receiving only perfunctory counseling had significantly more program changes, withdrew at a higher rate, and failed to return for the second quarter at a higher rate than did the students who underwent pre-registration counseling. (JP)

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PRE-REGISTRATION COUNSELING:
A COMPARATIVE STUDY

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INTRODUCTION

As the junior college evolved into the community college, more and different people were attracted to the community colleges. As a result, the student body became increasingly more diversified. The community college student body was made up of a mixture of vocational students, transfer students, adult education students, and students attending the community college for a variety of personal enrichment reasons. Often there were few characteristics to differentiate the various types of students. Any one student, in fact, could have belonged to two or more of the aforementioned groups.

As the students became more diverse in their goals and motivations, methods and practices of academic counseling became more varied. The variety and scope of the counseling processes were demonstrated in the results of a survey of community college counseling procedures conducted by O'Banion (1972). The procedures ranged from complete control and monitoring of each student's progress to approaches that left the students to their own devices.

As a result of a survey conducted by Peterson (1977:19), it was concluded that:

Institutions have been creative in developing a number of different advising structures which involve administrators, instructors, counselors, paraprofessionals, and students. The variety of structures would seem to indicate that no one process is the answer for all institutions.

As to the effectiveness of the various academic counseling programs, Peterson (1977:19) pointed out that the "effectiveness level of the processes seem to be represented by a general subjective feeling." It would appear from the survey little had been done to assess the effectiveness of counseling programs at the community college level.

The Problem

A vast amount of time and resources were committed to academic counseling in the colleges and universities in the United States. Academic counseling was recognized as an essential educational service but the methods of delivery were many and varied. Different approaches had strong advocates and strong critics. In most cases neither the advocates nor the critics possessed much factual evidence to substantiate their stands. There was little information available as to what influence the different approaches to academic counseling had on the student recipients of the service.

A search of the literature revealed that much had been written describing the various processes of academic counseling but little was reported concerning the effect the different approaches had on the academic performance of the students. Studies that had been made concerning the value of academic counseling were, for the most part, conducted at four-year colleges and universities.

Statement of Purpose

The purpose of this study was to determine if there were significant differences in academic performance among four groups of first-year, community college students participating in three different approaches

to pre-registration counseling. The student's reaction to and opinion of the academic counseling was also determined.

Questions

1. Was there a difference in the academic performance among the four groups of students during the first two quarters at Foothill College?
2. Was there a difference in the demographic makeup among the four designated groups of first-time, full-time students at Foothill College entering in the Fall quarter of 1978 with regard to age, sex, college major, ethnicity, high school attended, and high school G.P.A.?
3. Was there a difference of opinion among the students in the four designated groups of first-time, full-time students at Foothill College as to the adequacy of the academic counseling received on entering the college?
4. To what extent did students in the different groups make use of the counseling services at Foothill College during the first two quarters of the 1978-79 academic year?

Delimitations

This study was conducted to determine if there was a significant difference in the academic performance of students subjected to three different pre-registration counseling processes at Foothill College. The effect of the three procedures on the student's satisfaction with, and utilization of, the counseling services was also determined. The study was delimited to first-time, full-time students entering Foothill College in the Fall quarter of 1978. The study was conducted during the

Fall and Winter quarters of the 1978-79 school year.

Definition of Terms

The list of terms and their definitions below is intended to give the reader an understanding of the interpretation of each term intended by the author.

Academic counseling. Individual or group counseling sessions in which a counselor assisted the student or students in formulating both short- and long-term academic plans and goals.

Academic disqualification. Students who remained on probation for three consecutive quarters were academically disqualified.

Academic performance. Academic performance was based on the following criteria:

1. The number of units in the initial registration.
2. The number of program changes submitted.
3. The number of units in the final enrollment.
4. The number of units successfully completed with grade of "D" or better.
5. The G.P.A. (Grade Point Average).
6. The number of students returning for the Winter and Spring quarters.
7. Probation status.

Academic probation. Students who, after completing 12 units, received less than a 2.00 G.P.A. or who did not complete at least 50 percent of the courses in which they enrolled, were placed on academic probation.

First-time students. Students having no previous college

experience prior to entering Foothill College were classified as first-time students.

Full-time student. A student registered in 12 or more quarter units was considered full-time.

G.P.A. G.P.A. refers to the grade-point average based on a 4.0 scale.

High school attended. The student's high school of graduation was based on the following categories:

1. District high school.
2. County high school.
3. California high school.
4. High school in another state.
5. Foreign high school.

Individual counseling interview. A thirty-minute session with a Foothill College counselor in which the student's academic program for the coming quarter was planned.

Perfunctory approval. The approval given to a student's program of studies for the coming quarter with only a casual check as to the student's preparedness for the classes in which the student planned to enroll.

Methods and Procedures

Populations

First-time entering students at Foothill College received pre-registration, academic counseling by one of three different approaches and were thereby divided into three distinct groups. For the purposes of this study, one of the groups was divided and a fourth group created.

Group 1. This group consisted of approximately 350 students who registered for an "Introduction to College" course. The course was to be conducted by a regular Foothill College counselor. Academic counseling was to be conducted on a group basis during the course and the students were to be permitted to register on the last day of class. The students were to register before other new students.

Because of Proposition 13, which received an affirmative vote by the California voters in June of 1978, it was necessary to cancel all the "Introduction to College" classes due to lack of funds. The students had registered for the classes before the classes were canceled.

Group 2. This group of approximately 800 students were required to have an individual academic, counseling interview with a Foothill College counselor. The interview was thirty minutes in length and the students were permitted to register for the Fall quarter immediately following the counseling session.

Group 3. The 372 students in this group registered for the Fall quarter during the last two days of registration and saw a counselor for only perfunctory approval of the courses in which they enrolled.

Group 4. Approximately 250 students were randomly selected from a population of approximately 1,500 applicants and given a choice as to whether or not they would have the individual counseling session before registering for the Fall quarter. If they so chose, they received no academic counseling from a Foothill College counselor before registering. The students who elected not to have a pre-registration counseling session constituted the fourth group.

Sampling

Alphabetic rosters of the four groups of students were developed. From each roster, a random sample of fifty students was selected by starting at a random point and selecting a name at pre-determined intervals. The interval was determined by dividing the total population by fifty.

Collection of Data

The following information was determined for each student in the samples: age, sex, college major, ethnicity, high school of graduation, and high school grade-point average.

At the end of each quarter, the following information was collected on each student by writing an inquiry program to the college's computer data file:

1. The number of units in the initial registration.
2. The number of program changes submitted during the quarter.
3. The number of units in the final enrollment.
4. The number of units successfully completed with a "D" grade or better.
5. The probation and/or disqualification status.

At the beginning of the Winter and Spring quarters it was determined how many students in the samples did not continue in school.

At the beginning of the Spring quarter, a questionnaire was collected from each student in the samples to determine their satisfaction, on a five-point scale, with the academic counseling they received. The number of times they utilized the counseling service during the Fall and Winter quarters was also determined.

Treatment of Data

A mean and standard deviation were calculated for the following criteria:

1. Age.
2. High school grade-point average.
3. Number of units in the initial registration.
4. Number of program changes.
5. Number of units in the final enrollment.
6. Number of units successfully completed.
7. Foothill College grade-point average.
8. The degree of satisfaction with the counseling process.
9. The number of times the counseling service was used.

The significance of any difference in the means was tested by the "One-Way Analysis of Variance." If a significant difference was discovered at the .05 level of confidence, an "Orthogonal Comparison" was made and significance was determined at the .05 level of confidence.

For the following criteria, any differences were tested for significance using "Chi-Square for Contingency Tables":

1. The number of students returning the next quarter.
2. Probation status.
3. Disqualification status.
4. College major.
5. High school of graduation.

Significance was determined at the .05 level of confidence.

FINDINGS: COLLECTION AND ANALYSIS OF DATA

The purpose of this study was to determine if there were differences in academic performance, during the first two quarters, among three different groups of first-time, full-time community college students who received three different treatments in pre-registration counseling for the Fall quarter. A fourth group was included in the study to determine if students who registered to participate in a Summer College Orientation Program differed in academic performance from students who did not register for such a program.

Selection of Samples

During the Summer of 1978, as students submitted applications to attend Foothill College for the Fall quarter, a file folder was assembled for each student. This folder contained the student's application, high school and college transcripts, if available, plus any other submitted documents.

Six weeks prior to the beginning of the Fall quarter, all new students were to be sent a counseling appointment and a registration date. For purposes of this study, a random sample was drawn from the file of applicants by selecting every fifth folder until 250 had been selected. The students so selected were sent a registration appointment, but were not required to participate in an academic counseling session prior to registration. All other applicants were required to have such a counseling session. The registration forms sent to the 250 selected students were color-coded for later identification.

At the conclusion of the registration process, the student registration forms for all new students were organized into a file alphabetically by

last name. From these forms it was ascertained if the student had received counseling prior to registration; the classes and number of units in which each student registered, and the date of registration. This file of registration forms was divided into three groups.

Group One consisted of new, full-time students who had received individual counseling prior to registration. This group was identified in the study as the "Counseled" group.

Group Two consisted of new, full-time students who had not received counseling assistance before or during registration. This group was identified as the "noncounseled" group.

Group Three was made up of new, full-time students who registered during the last two days of a three-week registration period and received perfunctory counselor approval of selected courses during the registration process. This group was identified in the study as the "Late" group. A sample of fifty students was selected from each of the three groups using a table of random numbers.

A fourth sample was selected from Group One. However, the students selected in this fourth sample were limited to students who had registered for a Summer Orientation Program, but could not participate due to the program's subsequent cancellation. This fourth group was identified in the study as the "Orientation" group. The subjects in the "Orientation" group experienced the same counselor attention as did the subjects in the "Counseled" group. The reader is reminded that the "Orientation" group was included in the study to test the hypothesis that students volunteering for a pre-registration college orientation program do not differ from students who chose not to participate in such a program.

Data Collection

The students in each of the four selected samples were listed alphabetically by their last names along with their social security numbers. The social security numbers were punched into cards in order that the students' records could be accessed in the Foothill College District's computer.

At the conclusion of the Fall quarter, the student files were accessed and a complete record of the students selected for the study was printed. From these records, the following information was recorded for each student: age, sex, ethnicity, college major if determined, high school of graduation, high school grade-point average, number of units in the initial Fall quarter registration, number of units attempted during the Fall quarter, number of units completed during the Fall quarter, Fall quarter grade-point average, and withdrawal status. Each student's original registration form was compared to the student's record, and the number of course changes made during the quarter was recorded.

During the Fall quarter, all the selected students enrolled in and attended a twelve-hour "Introduction to College" course. The course was conducted by a professional counselor. One of the activities of this course was involved with academic advising and course planning. As a result, the subjects in the study all received academic counseling before registering for the Winter quarter.

At the conclusion of the Winter quarter, the student record file was again accessed and the same academic information was recorded for each student as was recorded at the end of the Fall quarter. The number

of students continuing into the Spring quarter was also noted.

As part of the Spring quarter registration process, each student in the four samples was requested to complete a questionnaire concerning their use of and satisfaction with the counseling service at Foothill College. Of the 159 subjects from who opinions were requested, 115 or 72.3 percent, returned their completed questionnaires.

Treatment of Data

Information recorded for each subject was punched into cards for computer processing. A program was written by the investigator to employ the statistical package developed by Steinbrenner, Nie, Hull, Jenkins, and Bent (1975). The data were processed on the Foothill College District's IBM Model 370 computer. The following statistical procedures were applied to the appropriate data: Chi Square, One-Way analysis of Variance, Orthogonal Contrasts, and Student-Newman-Keuls.

Analysis of Data

In answering the research questions and testing the hypotheses proposed in this study, the data were subjected to the following statistical procedures: One-Way Analysis of Variance was applied to the following data elements: age, grade-point averages, registration units, units attempted, and units completed. When the Analysis of Variance resulted in a calculated F that was significant at the .05 level of confidence, Orthogonal Contrasts and Student-Newman-Keuls procedures were applied to locate and analyze the differences.

Chi Square procedures were applied to the following data elements: sex distribution, ethnicity, college major, high school of graduation, program changes, withdrawals, returning students, and the use of and

satisfaction with the counseling service. Chi Squares were considered significant at the .05 level of confidence.

While a number of factors were analyzed in the study as they relate to make-up of the groups, the academic performance of the subjects and the opinions of the subjects, this paper deals only with the relationship of the three approaches to academic advising with: program changes submitted during the two quarters, the withdrawals during the quarter and the students who did not return to college during the two subsequent quarters.

Student Program Changes

During the Fall quarter the number of program changes recorded by each group and reported in Table 1 were as follows: the "Late" group, 153; the "Noncounseled" group, 121; the "Orientation" group, 81; and the "Counseled" group, 66.

The Chi Square analysis of the differences among the groups with regard to program changes during the Fall quarter, presented in Table 2, indicated three significant differences. The difference between the "Counseled" group (66) and the "Noncounseled" group (121) was significant at the .05 level of confidence. The difference between the "Counseled" group (66) and the "Late" group (153) was significant at the .01 level. The difference between the "Orientation" group (81) and the "Late" group (153) was significant at the .05 level.

An analysis of the data concerning program changes during the Fall quarter indicated that the presence of pre-registration counseling had a positive affect on the satisfaction the students had with their initial schedules of classes. The lateness of the registration process appeared

Table 1

Program Changes Submitted by Groups of Foothill College
Students Participating in Four Approaches to
Pre-registration Counseling, Fall and
Winter Quarters, 1978-79

Changes	Counseled		Noncounseled		Late		Orientation	
	F	W	F	W	F	W	F	W
0	15	19	10	11	7	9	16	15
1	21	14	12	17	5	13	13	22
2	6	6	7	10	11	5	9	6
3	5	3	5	2	6	1	6	2
4	1	0	6	1	8	0	3	1
5	1	0	6	0	7	1	1	0
6	0	0	3	0	4	0	1	0
7	0	1	0	0	0	0	0	0
8	0	0	1	9	1	0	0	0
9	1	0	0	0	1	0	1	0
Total	66	42	121	47	153	31	81	44

to have a negative affect on such satisfaction. The lack of a significant difference between the "Late" group and the "Noncounseled" group and the presence of a significant difference between the "Counseled" group and the "Noncounseled" group indicated that the incident of pre-registration counseling had a greater positive affect on the number of program changes than did the promptness of the registration.

Table 2

Chi Square Analysis of Program Changes between Groups of Foothill College Students Participating in Four Approaches to Pre-registration Counseling, Fall and Winter Quarters, 1978-79

		Noncounseled		Late		Orientation	
		x ²	df	x ²	df	x ²	df
Counseled	F	15.67 ^b	8	29.26 ^a	8	5.07	5
	W	4.27	5	3.41	5	5.07	5
Noncounseled	F			5.89	8	9.34	8
	W			6.53	5	1.67	4
Late	F					16.85 ^b	8
						7.21	5

^aSignificant at the .01 level.

^bSignificant at the .05 level.

During the Winter quarter the groups in the study recorded fewer program changes than during the Fall quarter, as reported in Table 1. The following changes were recorded for the four groups: the "Late" group, thirty-one; the "Noncounseled" group, forty-seven; the "Orientation"

group, forty-four; and the "Counseled" group, forty-two.

The Chi Square analysis of the differences among the groups with regard to program changes for the Winter quarter, as presented in Table 2, produced no significant differences among the four groups. For the Winter quarter, the registration process was the same for the four groups, and the subjects had equal access to academic counseling.

Withdrawals from college.

The number of subjects who completely withdrew from college during the Fall and Winter quarters are shown in Table 3. During the Fall quarter the range was from two withdrawals in the "Orientation" group to sixteen in the "Late" group. The "Counseled" group and the "Non-counseled" group had three and eight, respectively. During the Winter quarter the "Orientation" group, the "Late" group, and the "Noncounseled" group each recorded two withdrawals while the "Counseled" group recorded four.

The Chi Square analysis of the difference in the number of withdrawals among the four groups is presented in Table 4. For the Fall quarter there were indicated significant differences between the "Counseled" group (three) and the "Late" group (sixteen), and between the "Late" group (sixteen) and the "Orientation" group (two). Both differences were significant at the .01 level of confidence. While there was a difference between the "Counseled" group (three) and the "Noncounseled" group (eight), the difference was not significant at the .05 level. No significant differences were noted among the four groups during the Winter quarter.

Enrollment Winter and Spring quarters.

The number of subjects in the four groups who did not return to

Table 3

Withdrawals from College by Groups of Foothill College
Students Participating in Four Approaches to
Pre-registration Counseling,
Fall and Winter, 1978-79

Withdrawal Status		Counseled	Noncounseled	Late	Orientation
Withdrew	F	3	8	16	2
	W	4	2	2	2
Completed Quarter	F	47	42	34	48
	W	39	39	27	44
Total	F	50	50	50	50
	W	43	41	29	46

Table 4

Chi Square Analysis of Withdrawals between Groups of
Foothill College Students Participating in Four
Approaches to Pre-registration Counseling,
Fall and Winter Quarters, 1978-79

df = 1

		Noncounseled χ^2	Late χ^2	Orientation χ^2
Counseled	F	1.63	7.31 ^a	0.00
	W	.132	.005	.259
Noncounseled	F		2.68	2.77
	W		.027	.156
Late	F			11.45 ^a
	W			.002

^aSignificant at the .01 level.

Foothill College for the Winter and Spring quarters is reported in Table 5. A total of forty-one students failed to enroll for the Winter quarter. They were distributed in the groups as follows: the "Late" group, twenty-one; the "Noncounseled" group, nine; the "Counseled" group, seven; and the "Orientation" group, four. There were nineteen subjects enrolled during the Winter quarter who failed to enroll for the Spring quarter. They were distributed among the four groups in the following manner: the "Late" group, three; the "Noncounseled" group, five; the "Counseled" group, eight; and the "Orientation" group, three.

A Chi Square analysis of the number of subjects not returning to college for the Winter and Spring quarters is presented in Table 6. For the Winter quarter there were differences significant at the .01 level of confidence between the "Late" group (twenty-one) and the "Counseled" group (seven) and between the "Late" group (twenty-one) and the "Orientation" group (four). There was a difference significant at the .05 level of confidence between the "Late" group (twenty-one) and the "Noncounseled" group (nine). There were no significant differences indicated among the groups for the Spring quarter.

There was indicated a strong connection between the factors that caused the students to register late in the registration period and the persistence of the students in continuing college after the first term. After the first term, the dropout rate of the late registering students was consistent with the other students in the study.

Table 5

Subjects in the Four Groups of Foothill College Students
Participating in Four Approaches to Pre-registration
Counseling Who Reenrolled for the Winter and
Spring Quarters, 1979

Winter	Counseled	Noncounseled	Late	Orientation
Enrolled	43	41	29	46
Not Enrolled	<u>7</u>	<u>9</u>	<u>21</u>	<u>4</u>
Total	50	50	50	50

Spring	Counseled	Noncounseled	Late	Orientation
Enrolled	35	36	26	43
Not Enrolled	<u>8</u>	<u>5</u>	<u>3</u>	<u>3</u>
Total	43	41	29	46

Table 6

Chi-Square Analysis of Groups of Foothill College Students
Participating in Four Approaches to Pre-registration
Counseling Not Enrolling, Winter and
Spring Quarter, 1979

df = 1

		Noncounseled χ^2	Late χ^2	Orientation χ^2
Counseled	W	.283	7.31 ^a	.409
	S	.659	.913	3.33
Noncounseled	W		3.86 ^b	2.08
	S		.057	.836
Late	W			12.34 ^a
	S			.353

^aSignificant at the .01 level.

^bSignificant at the .05 level.

SUMMARY OF FINDINGS

The analysis of data in this study indicated that there was a relationship between pre-registration counseling and student program satisfaction and student retention.

General conclusions concerning this relationship were as follows:

1. Students receiving pre-registration counseling had more satisfaction with their initial program of courses than those not receiving pre-registration counseling. This was evidenced by significantly fewer program changes submitted by the counseled group.
 2. While not significant at the desired level, the students receiving pre-registration counseling withdrew at a lower rate during the first quarter than did the noncounseled group.
 3. While not significant at the desired level, fewer students who received pre-registration counseling failed to return for the second quarter than students who did not receive the counseling.
 4. Students registering late in the registration process had significantly more program changes, withdrew from college the first quarter at a significantly higher rate, and failed to return for the second quarter at significantly higher rate than did the students who registered earlier and received pre-registration counseling.
- While the differences between the late registrant and the earlier registrant who did not receive pre-registration counseling were of the same relationship, failure to return second quarter was the only difference significant.
5. The significant differences between the groups disappeared during the second quarter as all students in the groups were subjected to the same advisement experiences.

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